

## STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0046469; AI 33906; PER20100001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Village of Hessmer  
Hessmer Wastewater Treatment Facility  
P.O. Box 125  
Hessmer, LA 71341
- II. **PREPARED BY:** Rachel Davis
- DATE PREPARED:** March 3, 2010
- III. **PERMIT ACTION:** reissue LPDES permit LA0046469, AI 33906; PER20100001  
  
LPDES application received: January 14, 2010  
  
EPA has not retained enforcement authority.  
  
LPDES permit issued: May 1, 2004  
LPDES permit expired: April 30, 2009

#### IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Village of Hessmer.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located at 681 Benny's Lane in Hessmer, Avoyelles Parish.
- D. The treatment facility consists of a sequence batch reactor system with chlorine disinfection.
- E. Outfall 001

Discharge Location: Latitude 31° 2' 47" North  
Longitude 92° 8' 37" West

Description: treated sanitary wastewater

Design Capacity: 0.15 MGD\*

\*The previous permit was based on a design capacity of 0.1 MGD. The TMDLs completed for this Subsegment were also based on a flow of 0.1 MGD. Although, the permit application states that the design capacity of the facility is 0.15 MGD, the limitations for this renewal permit will be based on a flow of 0.1 MGD, which are consistent with the previous permit.

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Type of Flow Measurement which the facility is currently using:  
Continuous Recorder

**V. RECEIVING WATERS:**

The discharge is into an unnamed ditch, thence into an unnamed tributary, thence into Bayou Du Lac in segment 060212 of the Vermilion - Teche Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060212 of the Vermilion - Teche Basin are as indicated in the table below<sup>1/</sup>:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

<sup>1/</sup>The designated uses and degree of support for Segment 060212 of the Vermilion - Teche Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

**VI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 060212 of the Vermilion - Teche Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Rachel Davis  
Water Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

#### IX. PROPOSED PERMIT LIMITS:

Subsegment 060212, Chatlin Lake Canal and Bayou Dulac is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 060212 was previously listed as impaired for suspended solids/turbidity/siltation, pathogen indicators, organic enrichment/low DO, nitrate, phosphorus, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 060212:

##### TMDL for TSS, Turbidity, and Siltation for the Bayou Teche Watershed

"Point sources do not represent a significant source of TSS as defined in this TMDL. Point sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because the point sources are minor contributors and discharges of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocations for point source contributions were set to zero. This TMDL only addresses the landform contribution of TSS/sediment and does not address the insignificant point source contributions." Therefore, this facility will be permitted according to current state policy.

##### Chatlin Lake Canal and Bayou DuLac TMDL for Fecal Coliform

"The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200 cfu/100 mL in their effluent, i.e., they must meet the standard at end-of-pipe. Therefore, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL."

##### Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaizes Diversion Channel TMDLs for Dissolved Oxygen and Nutrients

The TMDL required point source reductions for two facilities, the Town of LeCompte and Allen Canning, and a 47% to 50% reduction from non-point sources, to maintain the dissolved oxygen criteria. The TMDL did not require any specific reductions for the Hessmer WWTF. However, the TMDL utilized permit limitations based on the Wasteload Allocation for Bayou Boeuf (WLA 90.02)(EDMS Doc ID# 15924076). This WLA allowed for the following seasonal limitations for this discharge: 10 mg/l BOD<sub>5</sub>,

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2 mg/l NH<sub>3</sub>-N and 5 mg/l minimum DO during the months of April through October and 20 mg/l BOD<sub>5</sub>, 10 mg/l NH<sub>3</sub>-N and 5 mg/l minimum DO during the months of November through March. Therefore, these effluent limitations shall be incorporated into the permit to address dissolved oxygen and nutrients.

**Final Effluent Limits:****OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD <sub>5</sub> April-October November-March	8.3 16.7	10 mg/l 20 mg/l	15 mg/l 30 mg/l	Limits are set in accordance with the <u>Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for Dissolved Oxygen and Nutrients</u> and consistent with the Wasteload Allocation for Bayou Boeuf, WLA 90.02
TSS	12.5	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen April-October November- March	1.7 8.3	2 mg/l 10 mg/l	4 mg/l 20 mg/l	Limits are set in accordance with the <u>Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for Dissolved Oxygen and Nutrients</u> and consistent with the Wasteload Allocation for Bayou Boeuf, WLA 90.02
Dissolved Oxygen	---	5.0 mg/l	---	Limits are set in accordance with the <u>Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for Dissolved Oxygen and Nutrients</u> and consistent with the Wasteload Allocation for Bayou Boeuf, WLA 90.02

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**Other Effluent Limitations:****1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

**2) pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

**3) Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

**X. PREVIOUS PERMITS:**

LPDES Permit No. LA0046469: Issued: May 1, 2004  
Expired: April 30, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:****A) Inspections**

A review of the files indicates the following most recent inspection performed for this facility.

Date: June 22, 2009

Findings and/or Violations:

1. Effluent was clear with slight turbidity, no visible solids
2. At the time of the inspection the facility was operating under an expired permit
3. The facility's ultrasonic flow meter had not been calibrated in the last 12 months
4. The DMR review for 2008-2009 revealed numerous TSS and BOD excursions for the last 12 months
5. The facility had many days of hydraulic overloads design capacity is 0.1 MGD. The facility has had flows as high as 0.5-0.6 MGD
6. The facility is not recording nor tracking cso/sso
7. The facility has not prepared the annual pollution prevention reports

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November 2008	TSS	001	15 mg/l	28 mg/l
	TSS		23 mg/l	36 mg/l
December 2008	TSS	001	15 mg/l	44 mg/l
	TSS		23 mg/l	54 mg/l
January 2009	BOD	001	10 mg/l	17 mg/l
	BOD		15 mg/l	18 mg/l
	TSS		15 mg/l	35 mg/l
	TSS		23 mg/l	35 mg/l
February 2009	TSS	001	15 mg/l	39.5 mg/l
	TSS		23 mg/l	44 mg/l
December 2009	TSS	001	15 mg/l	26.5 mg/l
	TSS		23 mg/l	41 mg/l

\*Based on the numerous compliance issues noted, the Water Permits Division referred this facility to the Enforcement Division on March 3, 2010

## XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.10 MGD

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Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.10 \text{ MGD} \times 15 \text{ mg/l} = 12.5 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
BOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Due to the absence of pretreatment categorical standards for the indirect discharges listed above or the discharge is of sanitary wastewater only, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0046469.

This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

<b>Audit Period Begins</b>	<b>Audit Period Ends</b>	<b>Audit Report Completion Date</b>
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

**XIII. TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

**XIV. REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2009.

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Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2009.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2009.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Village of Hessmer, Hessmer Wastewater Treatment Facility, January 14, 2010.